Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*17 November 2005*</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *31-38* is/are allowed.

6)☒ Claim(s) *1-4,6,8,9,20,22,24 and 26-28* is/are rejected.

7)☒ Claim(s) *5,7,10-19,21,23,25,29 and 30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All   b)☐ Some *   c)☐ None of:

         1.☒ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

11/17/2005 has been entered.

Claims 1, 6, 7, 8, 9, 14, 20 and 24 are currently amended.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

3.   Claims 1 - 4, 6, 8, 9, 20, 22, 24 and 26 - 28 are rejected under 35 U.S.C. 102(e)

as being anticipated by Cho et al (US 7,012,962).

Regarding claim 1, Cho '962 discloses, a video data coding/decoding apparatus

comprising: an encoder (figs. 2 – 3, abstract) dividing a partition, partitioned by a data

partitioning technique into certain blocks; channel-coding the divided block data and

transmitting a bit-stream (fig. 1, channel coding 3); the encoder inserting channel coding

information into the partitioned data (i.e. figs. 2-3, markers 12 and 14 and partition table

21) the channel coding information including size information of each of the plurality of

partitions (fig. 3, partition table, which includes the size information of each partition, col.

3, lines 48 – 51, the length information for respective partitioned regions); and a

decoder channel-decoding the bit stream received from the encoder so as to restore a

video data (i.e. fig. 4, decoding part 32).

Regarding claim 2, Cho '962 discloses, wherein the encoder divides the partition

into a plurality of blocks according to a predetermined block size (i.e. col. 2, lines 22 –

23).

Regarding claim 3, Cho '962 discloses, wherein the inserted channel coding

information relates to an index of a channel coding rate table, reads on (i.e. figs. 3 - 4,

partition table 21).

Regarding claim 4, Cho '962 discloses, wherein the channel coding is performed

in units of bytes (i.e. fig. 3, col. 4, lines 60 – 65).

Regarding claim 6, Cho '962 also discloses the encoder comprises: a

variable length coder source-coding the video data (i.e. figs. 3 – 4, variable length

coding part, col. 5, lines 43 – 45). As for the limitations of "partitioning it into a plurality

of partitions, and dividing each partition into certain blocks, and a channel coder

channel-coding the partition data of the divided block", they have been analyzed and

rejected with respect to claims 1 and 3 above. Cho also discloses a partition mixer

mixing a partition table storing the size information of the plurality of partitions and the

plurality of partition, so as to form the bit stream (i.e. figs. 3 and 4, variable length

coding part and the channel coding part are combined to form a bit-stream, see col. 5, lines 43 – 60).

Regarding claim 8, the limitations as claimed are the decoding part of claim 6 above, which reads on (i.e. figs. 1 and 4, channel decoding part and source decoding part, which are being combined to produce the original data to display).

Regarding claim 20, the limitations claimed have been analyzed and rejected with respect to claims 1 and 6 above.

Regarding claim 22, the limitations claimed have been analyzed and rejected with respect to claim 4 above.

Regarding claim 24, the limitations claimed have been analyzed and rejected with respect to claims 1, 3 and 6 above.

Regarding claims 9 and 26, the claimed limitations of "wherein the encoder comprises: a variable length coder source-coding a video data and partitioning it into a plurality of partitions, and dividing each of the partitioned partitions into the certain blocks; a channel coder channel-coding the partition data of the divided blocks; a partition mixer mixing the plurality of channel-coded partitions" have been analyzed and rejected with respect to claim 6 above. Furthermore, Cho also discloses a marker emulation eliminator checking whether marker emulation has occurred in the mixed partitions and performing a marker emulation avoiding operation (col. 5, lines 59 – 67). Specifically, in Cho, in the case of channel decoding, if an error occurs to boundary of respective partition regions (note: a boundary of each partitions can be known by

partition markers), it prevents continuation of a wrong channel coding by using length

information on the partition table, not the marker (col. 6, lines 60 – 65).

Regarding claim 27, the limitation claimed has been analyzed and rejected with

respect to claim 4 above.

Regarding claim 28, the limitations claimed have been analyzed and rejected

with respect to claims 1 and 3.

4.   Claims 1 – 2 are rejected under 35 U.S.C. 102(e) as being anticipated by

Wen et al (US 6,768,775).

Regarding claim 1, Wen '775 discloses, a video data coding/decoding apparatus

(i.e. fig. 3, abstract lines 1 – 3), an encoder dividing a partition partitioned by a data

partitioning technique into certain block (i.e. fig. 3, 30 and 32), channel coding the

divided block data and transmitting a bit-stream (i.e. fig. 3, 32, 36, 34), the encoder

inserting channel coding information into the partition data (i.e. fig. 3, elements 36 and

32, col. 3, lines 40 – 50, col. 5, lines 35 – 58), the channel coding information including

size information of each of the plurality of partitions (i.e. col. 3, lines 41 – 45 and col. 4,

lines 23 – 36) teaches, an additional information may be inserted into a bit region

(MVDP bit region, LMVV bit region, DDP bit region), for example in the DDP bit region

an 8-bit fixed length code is used, which is the size information of that region/partition,

a decoder channel decoding the bit stream received from the encoder so as to restore a

video data (i.e. fig. 5, decoder 60).

Regarding claim 2, Wen '775 discloses, encoder divides the partition into a

plurality of blocks according to a predetermined block size (i.e. fig. 3, in as much as

applicant has disclosed).

Allowable Subject Matter

5.   Claims 31 – 38 are allowed over the prior art of the record.

Claims 5, 7, 10, 11 – 19, 21, 23, 25, 29 and 30 are objected to as being

dependent upon a rejected base claim, but would be allowable if rewritten in

independent form including all of the limitations of the base claim and any intervening

claims.

6.   The following is an examiner's statement of reasons for allowance:

The prior art of the record fails to anticipate or render obvious the following:

Re claim 31, the further limitation of avoiding a marker emulation; generating a

window having less bits than the marker bit; checking whether a marker emulation has

occurred between the partition data while sliding the generated window; and inserting a

certain value at the very next portion of a portion which matches the window to avoid a

marker emulation, when the marker emulation is generated between partition data;

Re claim 33, the further limitations of searching a marker while removing bits

inserted to avoid a marker emulation from a received bit stream; demixing the bit stream

to a plurality of partitions when a marker is discovered; computing a total bit amount, an

information bit amount and a channel coding bit amount of each partitioned partition and

channel-decoding the partition data according to an index of a channel coding rate

table; and mixing the channel-decoded partitions, and performing a source decoding on the partitions so as to restore an original video data.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims 32 and 34 – 38 are allowed with respect to independent claims 31 and 33

Contact

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(571) 272-7339.**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mehrdad Dastouri** can be reached on **(571) 272-7418.**

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, Va. 22314.

Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is **(571) 272-6000,**

Or faxed to:

(571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

B.M.S.

3/27/2006

PRIMARY EXAMINER